

In the Claims:

The claims now in this application for examination are as follows:

1. A method for connecting a graft conduit to the aorta in a patient's body, the method comprising:

forming an incision in the body of the patient to expose a femoral artery;  
extending upwardly through the incision toward the aorta an elongated surgical instrument including a lumen therein between distal and proximal ends thereof;

performing an aortotomy at a site along the aorta through the lumen of the surgical instrument;

positioning one end of the graft conduit at the site through the lumen of the surgical instrument;

forming an anastomosis of the one end of the graft conduit with the aorta at the site of the aortotomy; and

attaching another end of the graft conduit to a blood vessel in the body of the patient.

2. A method for connecting to the aorta in a patient's body a graft conduit including a body portion and an end portion, the method comprising:

forming an incision in the body of the patient to expose a femoral artery;

extending through the incision toward the aorta an elongated surgical instrument including a lumen therein between distal and proximal ends thereof;

performing an aortotomy at a site along the aorta through the lumen of the surgical instrument;

collapsing the graft conduit to dimension smaller than the sectional dimension of the aorta;

positioning one end of the graft conduit at the site through the lumen of the surgical instrument;

expanding the end portion of the graft conduit into contact with the walls of the aorta to secure the body portion of the graft conduit in position through the aortotomy;

forming an anastomosis of the one end of the graft conduit with the aorta at the site of the aortotomy with the end portion positioned along the aorta and with the body portion protruding through the aortotomy;

attaching the end portion of the graft conduit to the aorta with the body portion protruding outside the aorta; and

attaching another end of the graft conduit to a blood vessel in the body of the patient.

3. The method according to claim 2 in which positioning the end portion of the graft conduit also includes inserting the collapsed graft conduit intralumenally within the aorta from a location downstream of the site.

4. A method for connecting a graft conduit to the aorta in a patient's body, the method comprising:

- forming an incision in the body of the patient to expose a femoral artery;
- extending through the incision toward the aorta an elongated surgical instrument including a lumen therein between distal and proximal ends thereof;
- performing an aortotomy at a site along the aorta through the lumen of the surgical instrument;
- positioning one end of the graft conduit at the site through the lumen of the surgical instrument;
- expanding a balloon within the aorta to urge the one end of the graft conduit into contact with the walls of the aorta in response to fluid under pressure supplied to the balloon;
- forming an anastomosis of the one end of the graft conduit with the aorta at the site of the aortotomy; and
- attaching another end of the graft conduit to a blood vessel in the body of the patient.

5. The method according to claim 4 further including installing a fluid conduit along a portion of the aorta downstream of the aortotomy for supplying fluid under pressure to inflate the balloon.

6. The method according to claim 5 in which the fluid conduit is disposed intralumenally along the downstream portion of the aorta between the site and a location along a femoral artery.

7. A method for implanting a graft conduit in communication with the aorta in the body of a patient, comprising:

forming an incision in the body of the patient for accessing the aorta;  
inserting the graft conduit through said incision toward a site along the aorta;  
installing the graft conduit in collapsed configuration in the region of the site within the aorta;

expanding the graft conduit to contact walls of the aorta in the region of the site;

anastomosing one end of the graft conduit to the aorta at the site; and  
anastomosing another end of the graft conduit to a blood vessel in the body.

8. The method according to claim 7 in which the graft conduit is introduced into the aorta at a location below the site for transfer between the location and the site.

9. (Previously Amended) The method according to claim 7 in which the graft conduit in collapsed configuration is expanded and urged into contact

with the aorta walls in response to a balloon disposed to expand under fluid pressure supplied thereto.

10. The method according to claim 9 in which fluid under pressure is supplied to the balloon along a channel that extends intralumenally within a vessel between the balloon and a downstream location along the vessel.

11. A method for implanting a graft conduit in communication with the aorta in the body of a patient, comprising:

forming an incision in the body of the patient below the inguinal ligament to expose the region between the inguinal ligament and the femoral artery for access upwardly toward the aorta;

inserting the graft conduit through said incision upwardly toward a site along the aorta;

anastomosing one end of the graft conduit to the aorta at the site; and

anastomosing another end of the graft conduit to a blood vessel in the body.

12. The method according to claim 11 in which the graft conduit is exposed within said region; and

another end of the graft conduit is anastomosed to the femoral artery below the inguinal ligament.